

MEDICAL TRAINING GROUP

TRAINEE NOTES



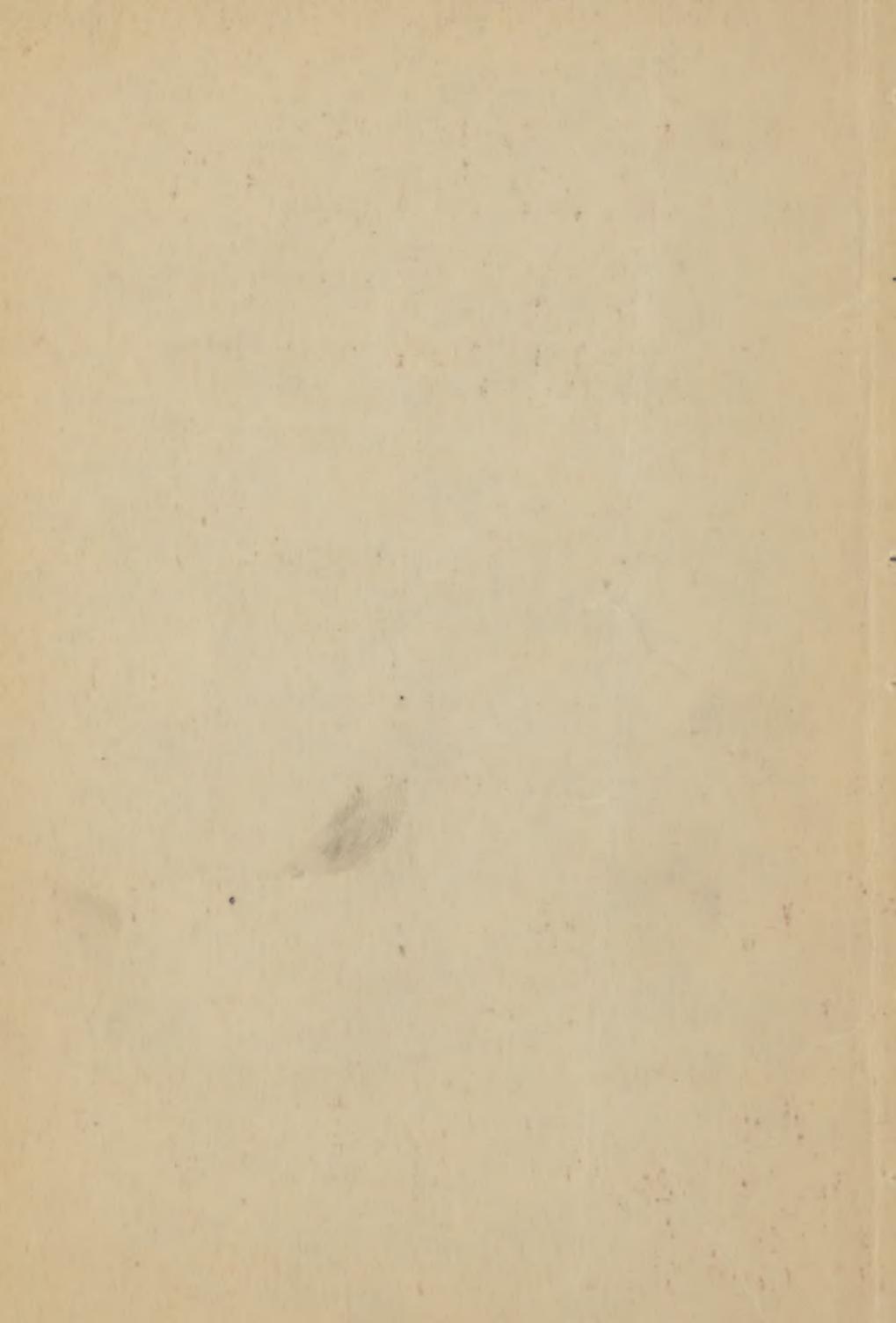
ARMY SERVICE FORCES



TRAINING CENTER



CAMP CROWDER MISSOURI



U.S. Army Service Forces, Training
Center, Camp Crowder, Missouri

TRAINEE NOTES



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FOREWORD

Where the toughest of our Army units go, the men of the Medical Department go with them. Every soldier knows that fact, even though civilians don't seem to have a complete grasp of the situation. The men who do the shooting are the heroes for the populace back home. But out where the bombs drop, where the shells come in with a nasty whine, and the rifle and machine gun bullets zip through the atmosphere, the true worth of the man of the Medical Department is fully realized.

A soldier who is fighting has something to help keep up his courage, to rid his mind of timorous thoughts concerning his own personal danger. He has a weapon. He's fighting back. He has a chance to defend himself and knock the daylights out of those birds on the other side. He takes it, but he dishes it out, too. He who has been where the big ones drop or the little ones come whistling up the wind, he

who has been staggered by terrific detonations and has spit that acrid taste of burnt powder out of his mouth knows how comforting it is to have something to throw back at the
 (sixteen words censored here).

That comfort, that great prop to courage, the men of the Medical Department never have. They can't fight back. They just take it. They endure all the hardships that the other outfits face and never feel the lift that the infantryman gets from the rifle, the grenades, or the machine gun that he is firing. The artilleryman has his great moment of exhilaration in combat when his 75mm lets go with a bark or when his 105mm howitzer whoops one toward the enemy positions. The tank boys -- well, let's agree that they don't travel in any bed of roses in those contraptions; but they have the satisfaction of knowing that they have some protection and can make considerable trouble with what they carry into action. The Rangers and the Tank Destroyer Troops go into action with weapons varying from

a strangling cord and dirk to much noisier and more powerful weapons, the details of which are still secret. When the paratroopers drop down out of the skies, they are walking arsenals.

Where all those units go, the men of the Medical Department go with them. What has the Medic to help him keep up his courage in the face of enemy fire? You tell 'em, Brother; you know! As far as the fighting goes, he can be only a target. He has to bind wounds, ease pains, and heal the sick. He must work under fire, evacuating casualties and conserving the fighting strength. He fights not with guns, grenades, and bayonets, but with sulfanilimide, sterile dressings, leg splints, and a strong back to carry a litter.

True, the Medic has assailed no stronghold; he has planted no flag in the enemy territory; he has killed not one of the enemy. But he has been doing his heroic part in strengthening our own side. And after all is over, what

can be more heart-warming to say than,
"I saved an American soldier's life?"

Early in our war the medical soldier received very little praise or recognition; but as the fighting got under way, the Medics began to make the headlines along with the other branches of the Service. Ernie Pyle and Raymond Clapper, two of the outstanding correspondents of this war -- each of whom has given his life in this struggle -- wrote day after day about the gallant work of the medical man and would frankly admit that even they could not find words adequate to express his true worth. Men who have been in battle have nothing but praise for the brilliant work done by the front line Medical Department men.

The medical soldier attached to the Infantry has now been authorized the Medical Badge, which is comparable to the Combat Infantryman Badge. This award is an indication of the Medics' merit and the tremendous job they have been doing. When decorations are

passed out, they are right there for a larger percentage in proportion to their numbers than any other branch of the Army. At the end of the Tunisian Campaign one hundred fifty Silver Stars were awarded to the Second Corps; and, although the Medical Department constituted only four per cent of the total number of men involved, they received sixteen per cent of the decorations.

Keep up the work and the spirit of the men who have gone before you, Medics. You belong to the proudest Branch of the Army.

NOTE: The preceding paragraphs are a paraphrase of tributes paid to the Medical Department by outstanding World War II correspondents.

...not much longer supporting the
dictatorship of the bourgeoisie by legal
and illegal methods can result in disaster.
The Central Committee of the CPUSA, which
represents the working-class party of the United States,
has repeatedly called for a broad
nonpartisan front of all progressive
forces to take up the struggle against
the Hitlerites. This was — and is — the
line taken by the CPUSA from the beginning of
its long and varied history and has been maintained
unbrokenly without qualification until the present
time. It is this general line of the CPUSA which
has been instrumental in bringing about the
present emergency situation and its
present dictatorship of the bourgeoisie and
which has caused the CPUSA to be
banned from the Congress of the People's
Deputies of the Soviet Union.

The political position defended by the
Central Committee must be supported by the
Medical Faculty, which is comparable
to the General Interscholastic Faculty. This
would be an indication of our position
now and the international solidarity we have
been demanding.

PREFACE

This booklet is devoted primarily to the Emergency Care and Treatment of Casualties, with which every Medical Department soldier must be thoroughly familiar in order to accomplish, in keeping with the high tradition of the Medical Department, his assigned mission of caring for casualties resulting in battle. In addition, there is a section on Self-Aid, designed for the purpose of acquainting the soldier with those things which he can do for himself in case he should be wounded. There are still other sections hitting the highlights of the following additional subjects with which the Medical Department soldier should be familiar: Personal and Sex Hygiene, Field Sanitation, Chemical Warfare, Camouflage and Concealment, Heavy Tent Pitching, Transportation of the Sick and Wounded, and Hasty Fortifications.

The trainee, in order to obtain full benefit from this booklet, should study

before each class the notes herein pertaining to that particular class and should take the booklet to class so that he can make notes therein for future references and review for examinations.

Soldier, this is not just another book of the many passed out to you; rather, it is a gold mine of priceless information. Save it. Preserve it. Master its contents. It will contribute to the saving of your life and that of your buddy in battle. In the Appendix of this book there appears an Individual Accomplishment Check List. During each class of the subjects listed in the Appendix, you will present your booklet to the instructor so that he can enter therein your grades as you perform the individual procedures.

TRAINEE'S NOTES

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X



CHARLEY CADUCE

Allow us to introduce "Charley Caduce", who will throughout this booklet represent the Medical soldier. He has completed his seventeen weeks of training, including Basic Medical Training at Camp Crowder, and is now represented in combat, applying the principles that he was taught.

EMERGENCY CARE AND TREATMENT OF CASUALTIES

I. Bandages and Dressings

1. Dressings

a. Purpose

- (1) To stop hemorrhage
- (2) To prevent infection
- (3) To prevent further injury to wound

2. Bandages

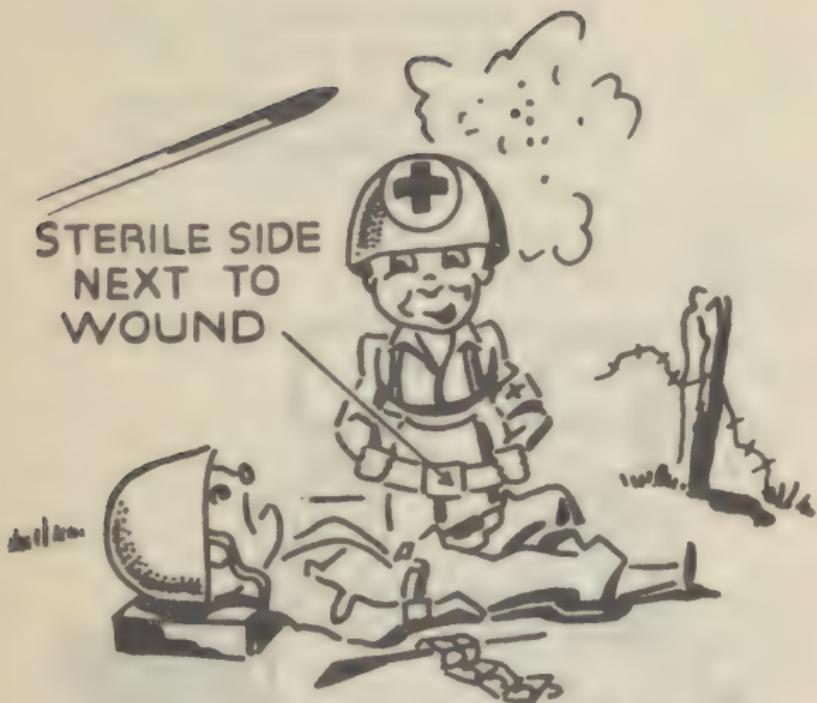
a. Purpose

- (1) To hold dressings
- (2) To hold splints
- (3) To create pressure in control of hemorrhage
- (4) To support parts of body such as arms, legs, and scrotum
- (5) To help keep foreign bodies out of wounds

3. General Rules

a. Never apply bandage directly over wound

b. Apply bandage only over dressing



DRESSINGS

- c. Apply dressing with sterile side next to wound
- d. Fix dressings in place with bandage

- II Hemorrhage: Escape of blood from an injured artery, vein, or capillary
 - 1. Types of hemorrhage
 - a. Arterial

- (1) Blood spurts from wound
- (2) Blood is bright red
- (3) Blood escapes rapidly and in large amounts



BANDAGE APPLIED OVER DRESSING

b. Venous

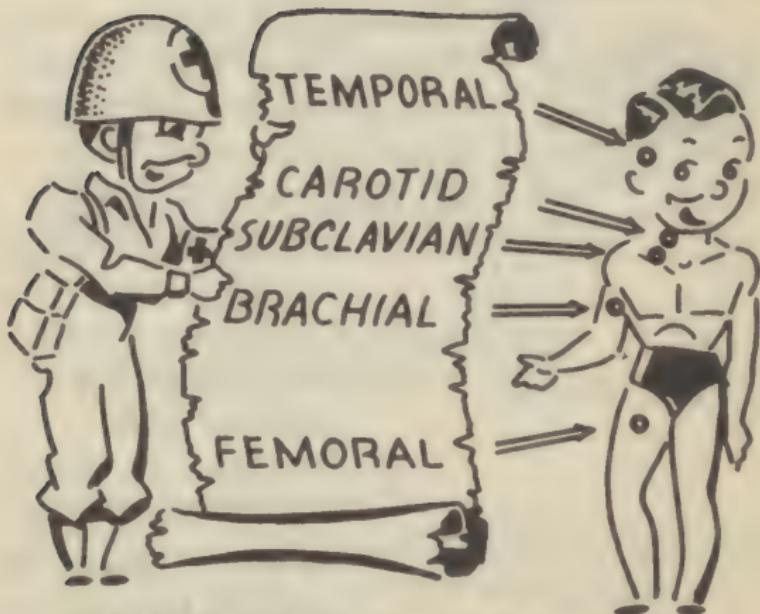
- (1) Blood wells up in wound
- (2) Blood is dark red

- c. Capillary
 - (1) Blood oozes from wound
- 2. Control of hemorrhage
 - a. Pressure methods
 - (1) Direct pressure, using dressing (compress)
 - (a) Sterile side of dressing to be held against wound firmly from three to five minutes
 - (b) Method generally effective
 - (2) Manual pressure, using fingers to press vessel against bone, used when direct pressure fails
 - (a) Pressure Points
 - 1. Temporal: front of ear, against cranium; press to stop bleeding on side of head
 - 2. Facial: in notch on under side of jawbone about two inches below and in front of ear lobe;

press to stop bleeding of face

3. Carotid: in neck between windpipe and big muscle, at level of Adam's apple; press against vertebral column to stop bleeding of head

4. Subclavian: behind inner part of collar bone; press in



and back against
first rib to stop
bleeding of shoul-
der and upper arm

5. Brachial: inside
of middle of upper
arm; press against
humerus to stop
bleeding below this
point in arm
6. Axillary: under
armpit; press to
stop bleeding in
arm from armpit
to fingers
7. Femoral: middle
of groin against
pelvic bone; press
to stop bleeding
of leg
8. Popliteal: behind
knee, against knee
joint; press to stop
bleeding from knee
to toes

(3) Tourniquet (as a last resort
only)

(a) Rules

1. Loosen every 20 minutes for about five seconds
2. To be at least 1 inch wide
3. Never cover
4. EMT to indicate date and time applied and loosened
5. Inform new attendants of application of tourniquet

(b) Dangers

1. Gangrene: caused from cutting off blood supply for too long a time



III Morphine

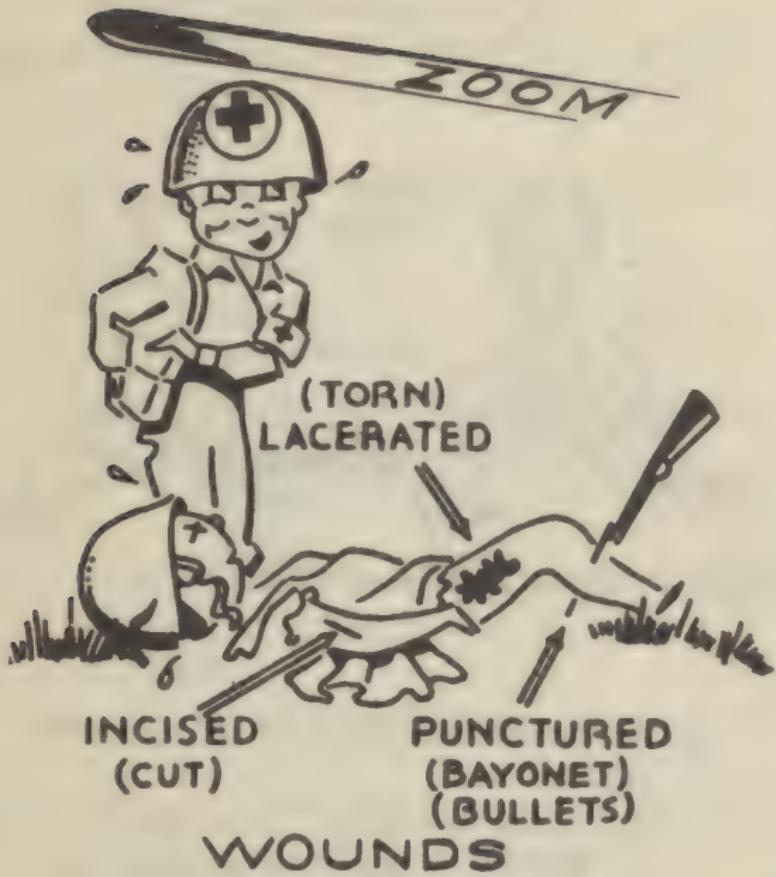
1. Use: to relieve pain
2. Caution: Do not repeat dose sooner than two hours
3. Dose: Syrette, one-half grain of morphine tartrate.

IV Wounds: Any bodily injury, as distinguished from sickness

1. Kinds of wounds
 - a. Incised: cuts caused by sharp instruments such as knives or glass

- b. Lacerated: cuts with irregular edges made by jagged objects such as shell fragments
- c. Contused: wounds accompanied by bruising or crushing of tissues (Example: black eye)
- d. Punctured: long, deep, narrow wounds such as are caused by bayonets
- e. Gunshot Wounds

2. Dangers: Hemorrhage, shock, and infection
3. Treatment of wounds
 - a. Expose by cutting (not tearing) away clothes; do not touch wound
 - b. Control hemorrhage
 - c. Apply sterile dressing
 - d. Fix dressing with bandage
 - e. Give eight wound tablets
 - f. Give morphine syrette if painful
 - g. Prevent shock
 - h. Splint extensive wounds of arms or legs
 - i. Give tetanus toxoid and gas gangrene injections later in aid station



4. Don'ts in treating wounds
 - a. Don't touch with hands, mouth, clothing, or any unclean object
 - b. Don't attempt to cleanse wound
 - c. Don't squeeze or massage wound
 - d. Don't poke in wound with any object

- e. Don't remove blood clots
- f. Don't pour antiseptics in wound



5. Wounds requiring special treatment

- a. Head wounds: Don't give morphine; transport patient on belly if jaw is fractured
- b. Sucking wounds of chest: Bandage wound air-tight; prop patient in semi-sitting position
- c. Belly wounds: Do not give tablets; do not give water or anything else by mouth; evacuate patient as soon as possible

V Burns

1. Size of area involved is more important than the depth of burn
2. Causes
 - a. Heat: dry, such as flames; wet, such as scalds
 - b. Chemical
 - c. Electrical
3. Classification
 - a. First degree: reddening of skin (sunburn)
 - b. Second degree: blistering of skin
 - c. Third degree: destroying or charring of skin & tissue
4. Effects
 - a. General effects
 - (1) Shock: great in large burns; major cause of death; occurs in first forty-eight hours
 - (2) Infection: occurs in second and third degree burns; may cause death
 - b. Local effects
 - (1) Pain
 - (2) Reddening, blistering, charring
 - (3) Swelling and oozing



5. Treatment

a. General treatment

(1) Treat shock first by all means available; use liberal amounts of plasma

(2) Treat infection; keep burn as clean and sterile as

possible; give wound tablets in serious burns

- (3) Give morphine for pain

- b. Local treatment

- (1) Cover burned area with sterile vaseline or sterile boric acid ointment

- (2) Cover ointment first with strips of fine mesh gauze; then add a smooth, thick layer of sterile gauze dressing; finally apply gauze or muslin bandage firmly on dressing

- (3) Splint, if burned area is large and on an extremity

- c. "Don'ts" in caring for burns

- (1) Don't pull clothing over or from burned area; snip or cut it off

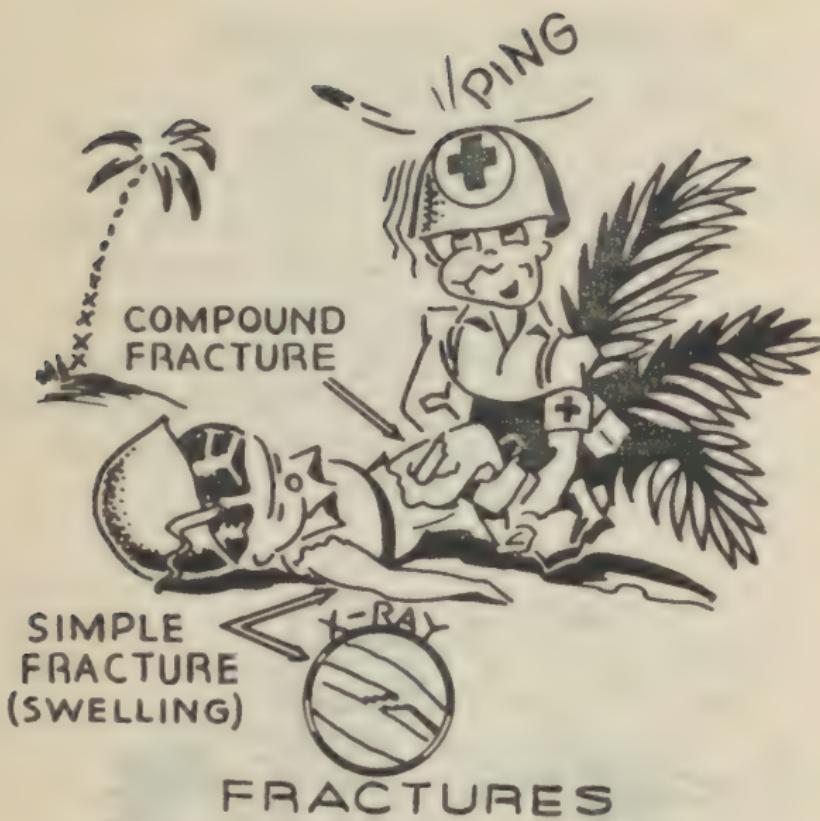
- (2) Don't break or prick blisters

- (3) Don't apply iodine or similar antiseptics to a burn

- (4) Don't apply cotton directly to a burn

VI Fractures: any break in a bone, from a small crack to a complete shattering

1. Types of fractures
 - a. Simple: no break in the skin over the fracture
 - b. Compound: a break in the skin over the fracture
2. Complications of fractures: damage to tissues such as nerves and blood vessels
3. Signs of a fracture
 - a. Local tenderness, swelling, pain, discoloration
 - b. Loss of function
 - c. Deformity
 - d. Grating of bone fragments
4. Treatment of fractures
 - a. Splint to immobilize:
“Splint where they lie.”
 - b. Give morphine for pain
 - c. Treat for flesh wounds in case of compound fractures
 - d. Watch for indications of shock and treat as necessary
5. Dangers in moving a person with a fracture without a splint:



- a. May cause a simple fracture to become a compound fracture
- b. May cause more bleeding
- c. Increases shock
- d. Increases pain during evacuation
- e. Further damages soft tissues and may damage nerve and blood vessels

6. Types of immobilization

- a. Improvised splints
 - (1) Use when other prepared splints are not available
 - (2) Material may be any rigid or semi-rigid material such as boards, limbs of trees, bayonet scabbards, leggings, rolled newspapers or magazines, rifles, and tent stakes



- (3) Improvised splints should
 - be padded next to skin, usually by pieces of clothing
- (4) Fix improvised splints, using handkerchiefs, pieces of clothing, belts, gas mask straps

b. Prepared splints, available at Battalion Aid Stations

- (1) Army Leg Splint: use for fractures of femur or thigh; tibia, upper 2/3 of leg; fibula, upper 2/3 of leg
- (2) Army Arm Splint: use for fractures of humerus, upper arm; ulna, forearm; radius, forearm
- (3) Wire Ladder Splints can be bent to splint any part of arms and legs
- (4) Basswood Splints, light boards, which may be cut to size and are most useful for splinting of arms

c. Permanent fixation, which is accomplished later by means of plaster, mechanical devices, or operations

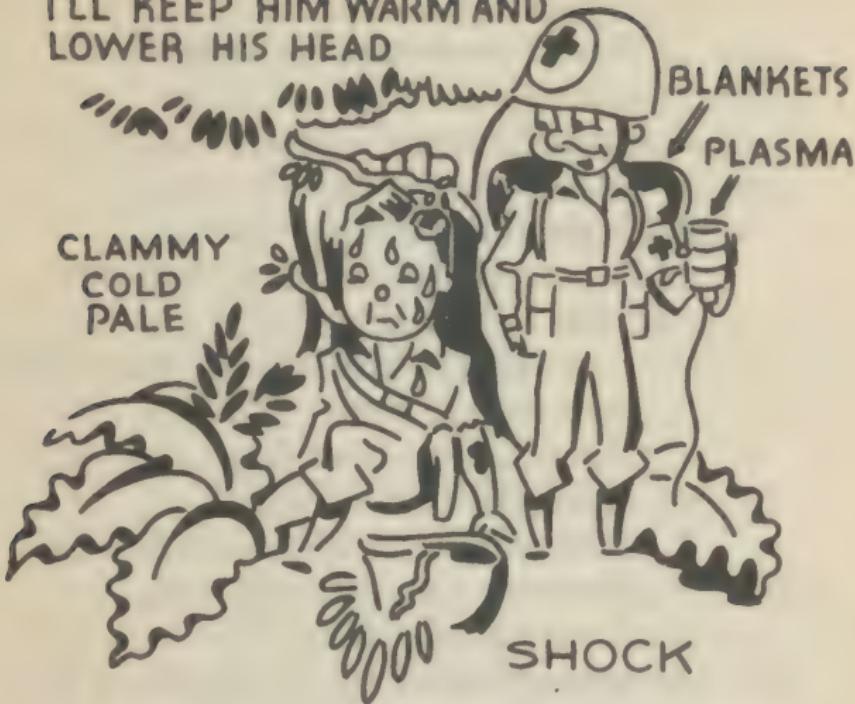
7. Rules for splinting
 - a. Splint should be as wide as part to be splinted
 - b. Splint should be well padded
 - c. Splint should be long enough to include the joint above and the joint below the fracture
 - d. Splint should be anchored at least two places above and two places below the fracture
 - e. Do not anchor too tightly
 - f. Leave toes and fingers exposed
 - g. Check toes and fingers frequently for swelling, color change, and coolness to touch, in order to see if splint should be loosened

VII Shock: a condition in which all the activities of the body are greatly depressed

1. Causes

- a. Severe injuries, especially with fractures of large bones
- b. Hemorrhage, extensive
- c. Burns
- d. Acute abdominal condition (perforations of intestines, strangulated hernia)

I'LL KEEP HIM WARM AND
LOWER HIS HEAD



2. Factors increasing shock: pain, fatigue, cold, hunger, and exposure
3. Symptoms of shock
 - a. Skin: pale, cold and clammy
 - b. Pulse: rapid and weak
 - c. Reactions are slow, and patient may not answer your questions at once
 - d. Patient feels faint and restless
 - e. Sighs when he breathes
 - f. Pupils of eyes dilated

- g. Great thirst
- h. Reaction to pain lessened

4. First Aid for shock
 - a. Stop bleeding, dress wound and splint fractures
 - b. Give morphine for pain
 - c. Remove wet clothing; remove pack
 - d. Lay the man down with the head lower than feet
 - e. Keep the man warm, using dry blankets or clothing
 - f. Move the man into a sheltered place and encourage him
 - g. Evacuate by litter
5. Additional treatment for shock to be administered as soon as is practicable
 - a. Give blood plasma in the vein
 - b. Give drinks (except in belly wounds) such as cocoa, hot milk, tea, or coffee
 - c. Re-check dressings and splints
 - d. Continue First Aid treatment

VIII Infection

1. Infection in a wound is a condition in which bacteria and such signs as redness, swelling, heat, pain,

pus are present. Not all bacteria cause disease or infection. Bacteria are always present on the human skin and clothes and get into wound at the time of injury. An infected wound is termed a "septic wound".

2. Factors upon which the likelihood and severity of infection depend:
 - a. Number and type of bacteria in wound
 - b. Resistance that the body has against those bacteria
3. Bodily defenses against infection
 - a. Skin and mucous membranes which act as a protective coat
 - b. Blood
 - (1) White blood cells, which surround and destroy bacteria
 - (2) Antibodies, invisible chemicals, which destroy bacteria
 - c. Lymph nodes, which act as filters to prevent spread of infection
4. Dangers of infection
 - a. May spread and cause death
 - b. Causes delay in healing

- c. Causes larger scars
- d. May destroy vital tissues and endanger usefulness of part

5. Steps in prevention of infection
 - a. Apply sterile dressings
 - b. Give 8 wound tablets (sulfadiazine) and large amounts of water in any wound except belly wounds. GIVE NOTHING BY MOUTH IN BELLY WOUNDS
6. Later treatment of infection
 - a. Tetanus toxoid booster dose
 - b. Gas gangrene antitoxin
 - c. Surgical removal of dead flesh

IX Artificial Respiration for Asphyxia

1. Asphyxia is unconsciousness from lack of oxygen, caused by drowning, electric shock, gas poisoning, blocking of upper air passages
2. Artificial respiration used to restart breathing in drowning, electric shock, and carbon monoxide gas poisoning
3. Technique of artificial respiration
 - a. Use and continue Schafer method until patient breathes or is pronounced dead by doctor

b. Press and release at a rate of 12 to 15 times per minute

X Frost-Bite and Trench Foot

1. Prevention: keep feet dry; massage feet gently to stimulate circulation; avoid tight shoes and constricting leggings
2. Treatment
 - a. Warm gradually
3. Don'ts in treatment
 - a. Don't rub with snow
 - b. Don't apply pressure
 - c. Don't treat with heat

XI Heat Stroke and Heat Exhaustion

<u>STROKE</u>	<u>SYMPTOMS</u>	<u>EXHAUSTION</u>
1. Skin red and hot	1. Skin cool and pale	
2. Skin dry	2. Skin moist	
3. Temperature very high	3. Temperature normal or lower	
4. Patient unconscious	4. Patient conscious	
5. Pulse strong	5. Pulse rapid and weak	
6. Often fatal	6. Rarely fatal	

TREATMENT

Heat Stroke: Work fast; remove clothing; cool patient by fanning or with water or ice.

Heat Exhaustion: Make the patient comfortable; loosen his clothing; let him sip salty water.

XII Care of the Feet to Prevent Blisters

1. Fit shoes properly
2. Wear dry socks, without holes
3. Keep feet clean
4. Use foot powder

REFERENCES

TM 8-220; TM 8-210; TM 8-233;
TM 8-285; FM 8-40 ; FM 21-10;
FM 21-11; FM 8-50 ;
Military Medical Manual, 5th Edition

SELF AID

- I Definition: Self aid is the medical aid which any soldier may give himself, regardless of his branch of service, before the company aid men arrive.
- II Three dangers from wounds to be remembered and to be counteracted with every available means:
 1. Hemorrhage
 2. Infection
 3. Shock
- III Control of Hemorrhage
 1. Apply direct pressure to wound with first aid packet used as a compress. This will stop nearly all bleeding except that of larger arteries. Remember it takes five minutes for blood to clot.
 2. Pressure points: use as a temporary measure for stopping bleeding from a large vessel. Learn location and use of pressure points.
 3. Tourniquet: use for bleeding from large arteries; loosen every 20 minutes.



-SELF-AID-

DON'T GET PANICKY-HELP YOURSELF - CHARLEY'S COMING

IV Preventing Infection

1. Cover wound with sterile first aid dressing, being careful not to move dressing around. Do not touch skin side of dressing before applying it.
2. Wound tablets: take all eight tablets with plenty of water in any serious wound except wounds of the belly.

V Preventing Shock

1. Immobilize fractures: do not

try to limp off with a broken leg. Place a broken arm in a sling improvised from clothes, belt, or gas mask strap.

2. Lie down: if you have bled seriously or if your wound is serious, lie down with your head lower than your feet.
3. Loosen clothes.
4. Keep warm: use your blanket, shelter half, and raincoat to spread over you.
5. Drink plenty of water.

REFERENCES

TM 8-223; TM 8-285; TM 8-220
FM 8-50 ; FM 21-11; FM 21-10

PERSONAL AND SEX HYGIENE

- I Venereal Diseases: those diseases commonly transmitted by sexual exposure
 1. Kinds
 - a. Gonorrhea: Clap, Gleet, Dose, Strain, Running Range
 - b. Syphilis: Pox, Bad Blood, Bad Disease, Syph, Lues
 - c. Chancroid: Soft Chancre, Blue Balls
 - d. Lymphogranuloma Venereum: Bubo
 - e. Granuloma Inguinale
 2. Gonorrhea: in detail
 - a. Caused by bacteria called gonococcus
 - b. Enters through the urethra (inside of penis) and is transmitted almost entirely by sexual exposure
 - c. Develops from three to seven days after sexual exposure
 - d. Symptoms
 - (1) Burning or itching in end of penis
 - (2) Frequent passing of water, with a burning sensation

(3) White discharge from penis

e. Prevention

(1) Rubber during sexual intercourse

(2) Chemical prophylaxis as soon as possible after sexual intercourse

(a) Pro Kits

(b) Pro stations

(c) Steps in the use of Pro Kit (the new one-tube kit)

1. Pass your water

2. Wash penis, scrotum, and surrounding parts thoroughly with soap and water (soap cloth)

3. Break off tip of ointment tube and inject 1/4 contents into urethra and massage penis gently with thumb and forefinger for a few seconds

4. Rub rest of ointment over entire penis,

scrotum, and surrounding parts for at least three minutes, paying particular attention to foreskin, head, and shaft of penis

5. Don't pass water for two hours after using ointment. (The ointment won't stain clothing and no covering is necessary.)

f. Most frequent complications
(1) Stricture
(2) Chronic infection of the prostate gland
(3) Crippling
(4) Blindness
(5) Sterility

3. Syphilis

a. Cause: Spirochete, germ shaped like corkscrew

b. Point of entry: usually on head of penis, lips, or tongue, but may invade anywhere

c. Develops in about three weeks as hard sore

- d. Symptoms
 - (1) Hard, painless sore usually on penis (first stage)
 - (2) Rash over body (second stage)
- e. Prevention: same as for gonorrhea
- f. Complications: Syphilis may affect any organ or part of body
 - (1) Common results of syphilis
 - (2) (a) Insanity
 - (b) Heart disease
 - (c) Crippling
 - (d) Blindness
 - (e) Sterility
 - (f) Paralysis

4. Miscellaneous facts about venereal diseases

- a. A person may have one or all types of venereal diseases at the same time
- b. Most cases are contracted from "nice" girls
- c. It is not possible to tell by looking at a person whether or not he or she has venereal disease

- d. Venereal diseases are most usually contracted by sexual intercourse.

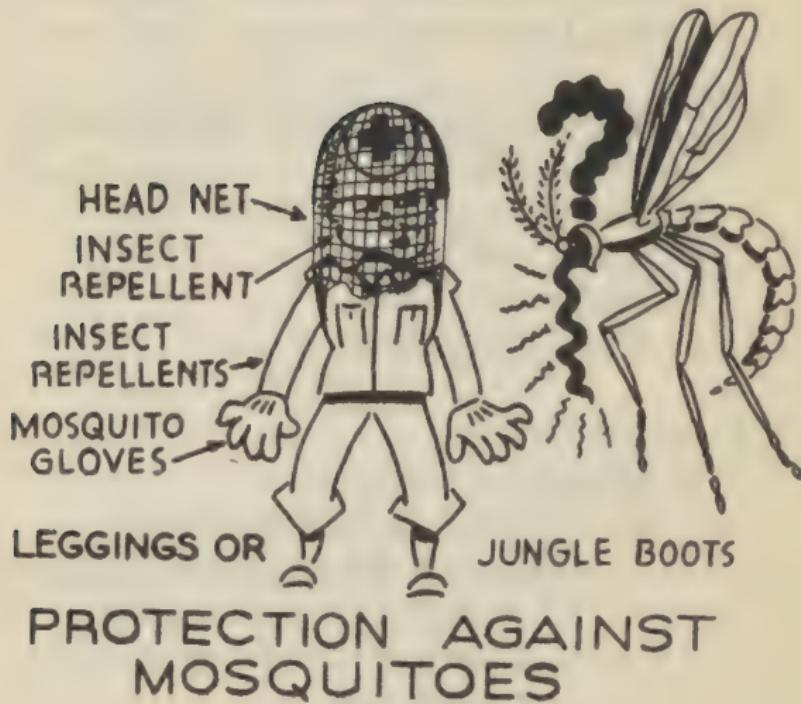
REFERENCES

TM 8-220; FM 21-10; FM 8-40;
FM 21-11; TB Med #81, 4 Aug 1944;
AR 40-210; Dunham Military Prevent-
ive Medicine

FIELD SANITATION

- I Objective of Military Sanitation
 - 1. Prevention and control of diseases among troops
 - 2. Maintenance of health and physical fitness of troops
- II Factors Upon Which Military Sanitation is based:
 - 1. Insect control
 - 2. Water purification
 - 3. Waste disposal
 - 4. Mess sanitation
- III Insect Control
 - 1. Mosquito control
 - a. Control of breeding area
 - (1) Spray water (breeding place) with DDT oil solutions, waste oil, kerosene, and Diesel oil
 - (2) Dust breeding places with DDT dust and Paris Green
 - (3) Provide drainage ditches for drainable areas
 - (4) Fill in surface ground depressions

- (5) Remove rubbish by policing
- (6) Clear vegetation from streams and ponds



- b. Control of adult mosquitoes
 - (1) Kill mosquitoes in tents, barracks, native huts, and other buildings with the Freon aerosol bomb, GI insecticides, DDT residual-effect spray, and DDT-Freon bomb
 - (2) Use personal protective measures such as head nets, mosquito gloves, leggings, insect repellents, bed nets, and field nets for pup tents
 - (3) Use personal protective measures from dusk to dawn or as directed
 - (4) Take suppressive drugs, atabrine and quinine, as directed by the unit commander

2. Fly Control

- a. Control of breeding area
 - (1) Remove breeding places by proper waste disposal
- b. Adult fly control
 - (1) Use insecticides, 5% DDT spray and Quartermaster spray, in kitchens and other places where flies congregate

(2) Install baited fly traps at all waste disposal facilities and at field kitchens

IV Water

1. Quantity

- a. March or combat: one gallon per person per day
- b. Bivouac: two to five gallons per person per day
- c. Temporary camp: five to fifteen gallons per person per day

2. Purification

- a. Remove cloudiness by mixing approximately one mess-kit spoonful of alum to lyster bag of water and allow to settle
- b. Remove cloudiness by allowing water to settle in GI cans or Lyster bags
- c. Purify water in Lyster bag by adding one or more ampules of calcium hypochlorite to each bag of water (depending upon quality of water).
- d. Test for chlorine in water by using orthotolidine, which should show a deep yellow color.

This indicates one part chlorine per million parts of water

- e. Purify water in canteens by adding two (four-grain) halazone tablets to each canteen of clear water, or four tablets if turbid water is used

V Waste Disposal

1. Human waste disposal

- a. Deep pit latrine: 2 feet wide; 8 feet long; 1 foot in depth for each week of use, plus 2 feet for earth covering
- b. Straddle trenches: 1 foot wide; 8 feet long; 18 to 24 inches deep. When the trench is filled to within 1 foot of ground level, it should be filled with earth
- c. Cat holes: for use by the individual soldier in emergency only
- d. Urine soakage pits: 4 feet square and 4 feet deep, filled with rocks; connected to urine troughs or pipes
- e. Latrine facilities should be provided to accommodate eight per cent of the unit at one time

2. Garbage Disposal
 - a. Incineration by means of the inclined plane or cross trench and barrel type incinerators
 - b. Burial in garbage pits, which are oiled frequently and covered with 12 to 18 inches of earth
3. Liquid waste from kitchens, disposal
 - a. Run through baffle grease trap into a soakage pit filled with rocks
4. Manure and rubbish disposal
 - a. Removal of such material to prevent fly and mosquito breeding

VI Mess Sanitation

1. Washing of mess gear
 - a. Three GI cans are required:
1 can for hot soapy water, 2 cans for boiling water rinses
 - b. Mess gear should be cleaned of all food waste before washing
 - c. Scald before meals
2. Protection of food
 - a. Perishable foods should be stored in an ice box, under-

ground if the operations are in
the field

- b. Non-perishable foods must be stored, inaccessible to flies, other insects, and rodents, in food storage boxes or in clean mattress covers

REFERENCES

TM 8-220; FM 8-40; FM 21-10;
Dunham Military Preventive Medicine,
3rd Edition

CHEMICAL WARFARE

- I Chemical Agents and Their Odors
 - 1. Phosgene: new-mown hay, cut corn
 - 2. Mustard: garlic, horse-radish, wild onions
 - 3. Lewisite: geraniums
 - 4. Nitrogen Mustard: slight fishy odor
 - 5. Adamsite: coal smoke
 - 6. Tear Gas: apple blossom
 - 7. Hydrocyanic Acid: bitter almonds
- II Use of Protective Ointment (M-5)
 - 1. Remove all contaminated clothing
 - 2. With cloth blot off excess agent on skin
 - 3. Apply Protective Ointment M-5 and rub in for 20-30 seconds
 - 4. Wash all contaminated areas thoroughly with soap and water
 - 5. After redness or blisters have developed, do not use M-4 or M-5; use only soap and water
- III Emergency Medical Treatment for White Phosphorous Burns

1. Immerse in water or cover with thoroughly wet dressing
2. Cover with Copper Sulfate Solution (10%)
3. Report to Medical Officer for removal of particles and treatment of burns. If you have neither water nor Copper Sulfate, urine will do. Do not use mud.

IV First Aid for Gas Casualties

1. Choking gases
 - a. Put patient at rest
 - b. Keep warm with blankets
 - c. Give hot stimulants
 - d. Give no artificial respiration, alcoholic drink, or morphine
2. Blood and nerve poisons
 - a. Adjust mask when required to be in area
 - b. Give Amyl Nitrite inhalations crushed ampoule in handkerchief or in face-piece of mask
 - c. Give artificial respiration
3. Blister gases in the eyes
 - a. Use BAL immediately and then water irrigations

V Decontamination Agents

1. Chloride of Lime: 2 parts lime and 3 parts earth make dry mix; 1 bucket of water and 6 shovels of lime make the slurry
2. Danc: Decontaminating Agent Non-Corrosive

VI Detection Devices

1. Blister gases bring about the following color changes:
 - a. Detector paint: from OD to red
 - b. Detector crayon: from pink to blue (Mustard); from pink to yellow (Nitrogen Mustard)
 - c. Detector paper: from OD to red

VII Gas Mask Drill

1. At command, "GAS"
 - a. Remove head dress, bring face-piece up in front of face
 - b. Seat chin pocket of face-piece firmly on the chin and slip head harness smoothly over head
 - c. Clear face-piece and check the mask
 - d. Replace head-dress; fasten carrier flap
2. Removing and replacing mask

- a. Test for gas and remove face-piece with downward, outward, and upward motion. Replace head dress.
- b. Fold head harness inside face-piece and put halfway in mask.



A GAS ALARM
(METAL AGAINST METAL)

- c. Slide mask in carrier and close flap of carrier.

VIII Gas Alarm

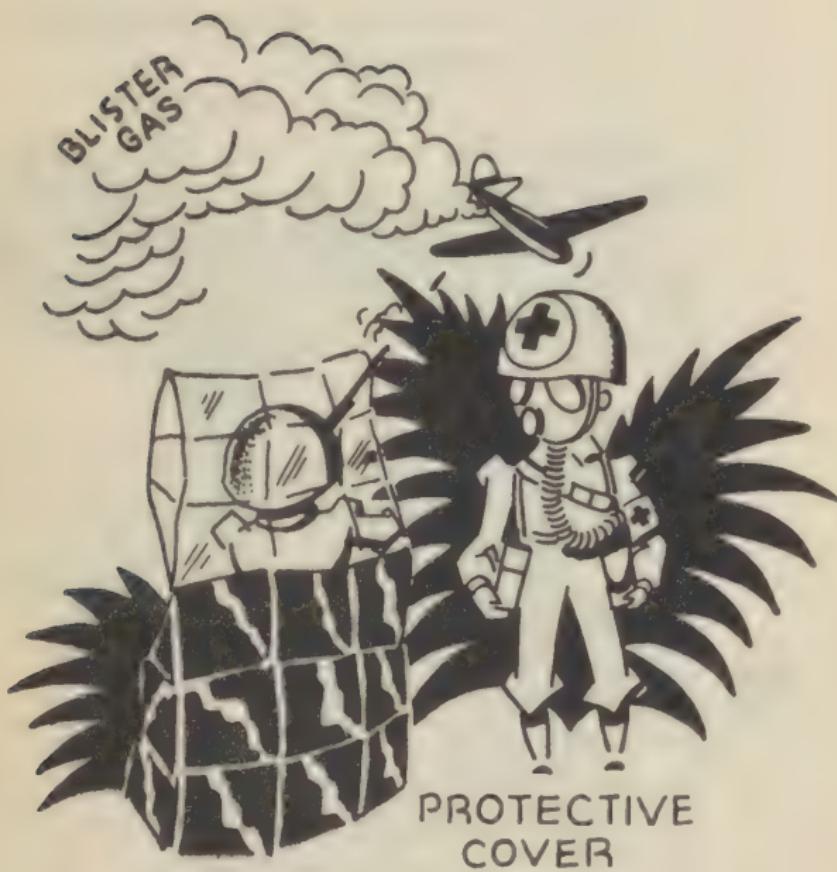
- 1. Continuous ringing sound of metal against metal

IX Protective Cover

- 1. Used for protection against spray attacks
 - a. When cover is contaminated, it is to be thrown away or buried.

REFERENCES

TM 3-205, 9 Oct 41, Changes 1,2,3,4, 5;
TM 3-220, 15 Nov 43, Change 1
FM 21-40, 7 Sept 42, Changes 1,2,3,4,5.



CAMOUFLAGE AND CONCEALMENT

I Rules to Follow

1. Individual

- a. Blend clothing and equipment with background
- b. Choose position carefully
- c. Consider point from which enemy is watching
- d. Use natural concealment
- e. Avoid careless movement
- f. Always practice proper camouflage

2. Vehicles

- a. Disperse adequately
- b. Use overhead cover, natural or artificial
- c. Use existing roads
- d. Cover windshields and lights
- e. Break up shadows

3. Installations

- a. Avoid prominent landmarks
- b. Use overhead cover
- c. Use concealed routes
- d. Tone down equipment
- e. Bury empty cans, bottles, and other rubbish

REFERENCES

TM 5-267, supplements 1, 2, 3, 4, 5.
FM 5-20, A, B, C, D, E, F, H.



CAMOUFLAGE
(FIND CHARLEY)

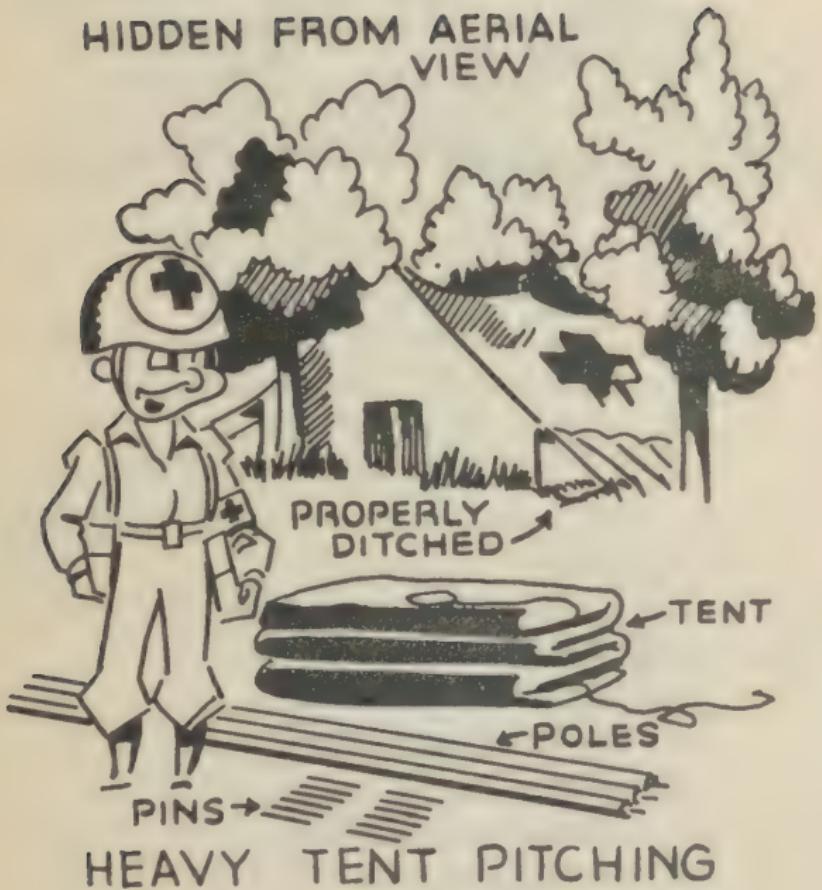
HEAVY TENT PITCHING

I Rules to Follow

1. Know the tents used by the Medical Department
2. Select proper site for pitching tent
 - a. Protection from wind
 - b. Protection from flood
 - c. Protection from enemy fire
 - d. Level ground
3. Pitch properly
4. Camouflage properly
5. Ditch properly
6. Loosen ropes as tent gets wet
7. Repair holes immediately
8. Dry tent thoroughly before folding
9. Fold properly
10. Store in dry place

REFERENCES

FM 20-15,
FM 21-15, Oct '40, Changes 1,2,3,4,5,6.
MFSS Publication, "Heavy Tent Pitching",



TRANSPORTATION OF SICK AND WOUNDED

- I Correct transportation of a seriously wounded man is one of the most important parts of his treatment.
 1. Rules to follow
 - a. Handle gently
 - b. Transport by most comfortable method available
 - c. Don't move patient in shock unless necessary
 - d. Don't move patients until fractures have been splinted
 - e. Dress litter properly
 - f. Improvise litters when necessary; make use of anything available
 - g. Lash litters securely on vehicles
 2. Manual Carries
 - a. Fireman's carry
 - b. Supporting carry
 - c. Arms carry
 - d. Saddle back carry
 - e. Pack-strap carry
 - f. Fireman's drag
 - g. Pack saddle carry
 - h. Pistol belt carry

REFERENCES

FM 8-25; TM 21-11



CAMOUFLAGED
FOXHOLE
"DIG IN OR DIE"

FORTIFICATIONS (HASTY)

I Individual Protection

1. Foxholes (Prone or Standing Shelters)
 - a. Dig immediately when you stop
 - b. Locate near shelter tent
 - c. Avoid trees
 - d. Camouflage carefully
 - e. Dispose of "spoil"
 - f. Dig large enough to fit YOU
 - g. Allow two feet clearance above your head
2. Dig or Die: 8 out of 10 without foxholes are wounded; 2 out of 10 with foxholes are wounded



CHARLEY CADUCE AWARDED MEDICAL BADGE

Having been well taught at Camp Crowder, "Charley Caduce" knew how to apply his medical knowledge when he joined an infantry unit in the field of combat. In recognition of his meritorious service, "Charley" is awarded the Medical Badge. Yes, he's proud of himself; he's proud to be part of the finest Branch of the Army.

BIBLIOGRAPHY

The following references have been freely consulted:

SUBJECT

Emergency Care and Treatment of Casualties:

TM 8-220; TM 8-210; TM 8-233;
TM 8-285; FM 8-40; FM 21-11;
FM 8-50; FM 21-10
Military Medical Manual, 5th Ed.

Personal and Sex Hygiene:

TM 8-220; FM 21-10; FM 8-40;
FM 21-11; TB Med #81, 4 Aug 1944;
AR 40-210;
Dunham Military Preventive Medicine

Field Sanitation:

TM 8-220; FM 8-40; FM 21-10
Dunham Military Preventive Medicine
3rd Edition

Self Aid:

TM 8-233; TM 8-285; TM 8-220;
FM 8-50; FM 21-11; FM 21-10

Chemical Warfare:

TM 3-205, 9 Oct 41, Changes 1,2,3,4,
5; TM 3-220, 15 Nov 43, Change 1;
FM 21-40, 7 Sept 42, Changes 1,2,3,
4,5.

Concealment and Camouflage:

TM 5-267, supplements 1,2,3,4,5.
FM 5-20, A, B, C, D, E, F, H.

Heavy Tent Pitching:

FM 21-15, 1 Oct 40, Changes 1,2,3,
4,5,6.

MFSS Publication, "Heavy Tent
Pitching"

Transportation of Sick and Wounded:

FM 8-25; FM 21-11

Hasty Fortifications:

FM 5-15, 14 Feb 44

FM 21-75, 6 Feb 44, Changes 1, 2.

APPENDIX

INDIVIDUAL ACCOMPLISHMENT CHECK LIST

This check list will be presented to the assigned platoon instructor when the bandage or procedure is ready for inspection, and the instructor will place a rating and his initials in the appropriate entry on this form.

I	<u>Roller Gauze Bandage</u>	<u>Rating</u>	<u>Initials</u>
---	-----------------------------	---------------	-----------------

1. Circular
2. Spiral
3. Oblique
4. Recurrent of the head
5. Recurrent of the hand
6. Figure eight
7. Spiral reverse of the arm
8. Complete bandage of the hand
9. Demigauntlet of the hand
10. Gauntlet of the hand

	<u>Rating</u>	<u>Initials</u>
11. Hip Spica		
12. Shoulder Spica		
13. Velpeau Bandage		
14. Barton Bandage		
15. Crossed bandage of one eye		
16. Crossed bandage of both eyes		
17. T-bandage		
18. Tailed Bandage		

II. TRIANGULAR BANDAGES

1. Fronto-occipital-triangle
2. Triangle of the chest
3. Brachio-cervial triangle
4. Arm sling
5. Triangle of the head
6. Triangle of the foot
7. Gluteous-femoral triangle

III. CRAVAT BANDAGE

Rating Initials

1. Cravat of the eye
2. Cravat of the ear
3. Cravat of the neck
4. Cravat of the arm
5. Cravat of the palm of the hand
6. Cravat of the elbow
7. Cravat of the knee

IV. SPLINTS

1. Army leg splint
2. Army arm splint
3. Army wire ladder splint
 - a. Ankle region
 - b. Leg region
 - b. Forearm region
4. Improvised leg splint

5. Improvised arm
splint

V. ARTIFICIAL RESPIRATION

1. (Schafer method)

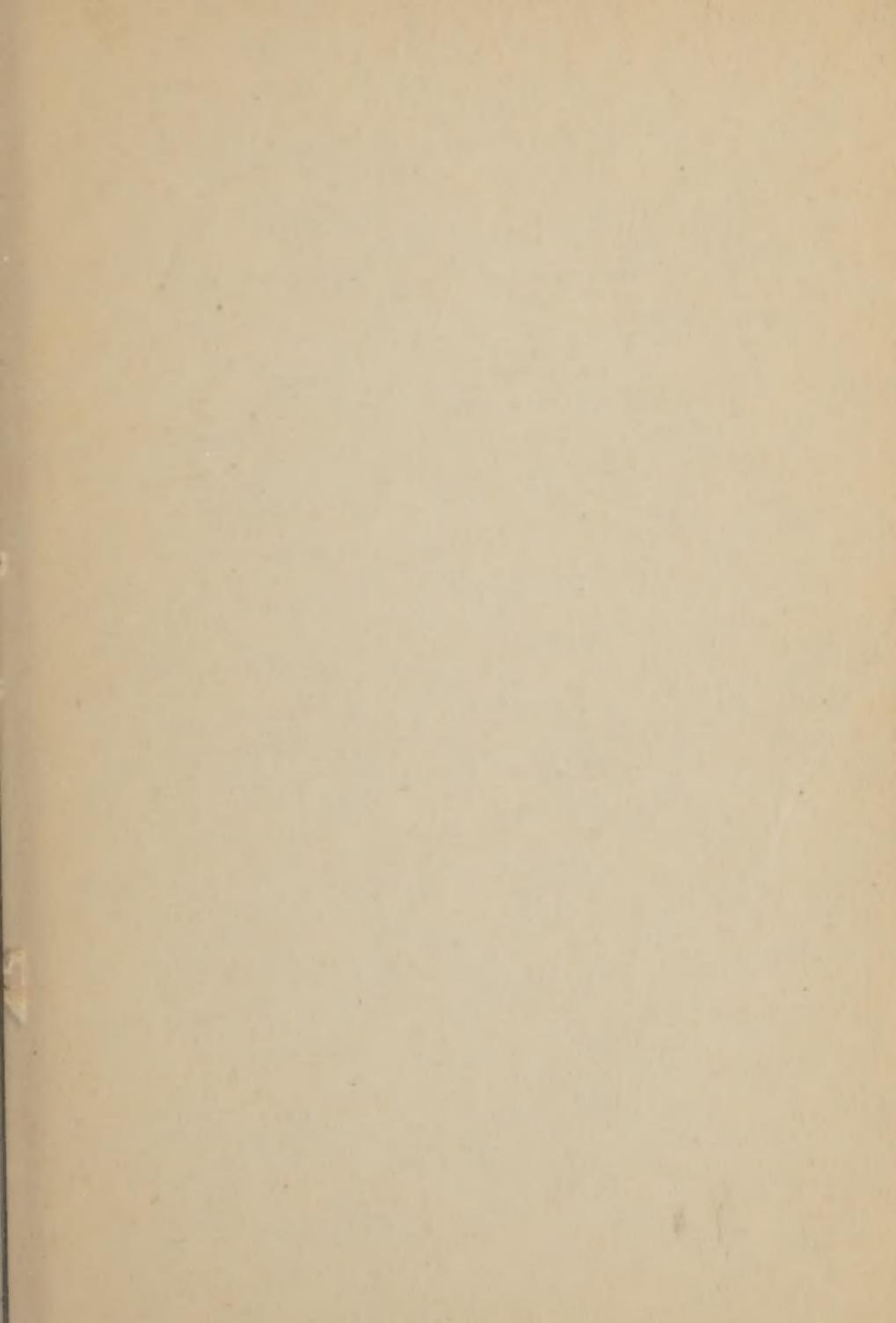
VI. CONTROL OF HEMORRHAGE

1. Tourniquet

- a. Tourniquet of the arm
- b. Tourniquet of the thigh

2. Pressure points

- a. Temporal artery
- b. Facial artery
- c. Carotid artery
- d. Subclavian artery
- e. Axillary artery
- f. Brachial artery
- g. Femoral artery
- h. Popliteal artery



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ASFTC-40